How John Lewis conquered the web

PHOTO: JOHN LEWIS
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The inside story behind John Lewis’s £40m web commerce project
Website rebuild positions retailer for future growth

With its existing website creaking under the strain of soaring online sales, John Lewis embarked on a £40m IT project to rebuild its e-commerce platform. Bill Goodwin tells the inside story of the project, and assesses the technical and business challenges John Lewis faced.

John Lewis bucked the trend when its Christmas sales rose by more than 7% in the run-up to 2014.

While other retailers struggled, John Lewis saw its revenues accelerate, propelled by a 22% year on year growth in online sales.

For Paul Coby, John Lewis’s IT director, these figures show the impact of the department store chain’s biggest IT project to date – a £40m project to rebuild its website and e-commerce infrastructure.

The website, built at a cost equivalent to that of several new stores, was a huge undertaking that affected every aspect of the business. More than 250 people – including in-house IT specialists, offshore developers, graphic designers, external consultants and suppliers – worked for three years to make the new website a reality.

The project required 240,000 lines of computer code, developed by teams in London and India; the integration of more than 30 complex IT systems; and more than eight months of solid testing. It was, in the words of John Lewis’s executive director, Charlie Mayfield, the equivalent of performing open heart surgery on the business.

Omni-channel

The project underpins the retailer’s omni-channel strategy, which seeks to give customers the same personalised experience whether they shop online, in a store or over a mobile phone.

“We knew that the last thing we wanted to do was create something completely different, that we think is wonderful, where no one can find their way around”

Paul Coby, IT director, John Lewis

“Two-thirds of John Lewis customers shop both in-store and online, so being able to offer the same levels service both online and in store makes a real difference to shoppers,” says Coby.

“We all do it, don’t we?” he says. “When we are in the store, we go and look at the new curved-screen televisions, and then go online to buy one. We go and bounce on the mattress, but we may well order that online.”

Birth of a website

John Lewis was a pioneer in online retailing. Back in 2001, it bought the UK arm of electrical and gadget retailer Buy.com, an early rival to Amazon.

That site became the first JohnLewis.com. The retailer began slowly at first, offering home products and some electrical appliances online. But it has expanded over the years, adding fashion and other product lines. Today it supports more than a quarter of a million different products.
Buy.com’s technology has powered the John Lewis website for more than a decade and played a crucial role in helping the retailer to break through the barrier of £1bn in online sales in 2013, says Coby.

“It has served us very well. We worked on it, built it, developed it – and that started the retail revolution for us,” he says.

**John Lewis 2.0**

But it became clear by 2010 that John Lewis needed a new e-commerce platform if it was to grow the business further. The software behind Buy.com was heavily customised and was becoming increasingly difficult and expensive to support. The old site was reaching the end of its capacity as internet sales at John Lewis grew.

And, crucially, John Lewis as a business wanted to expand its sales through mobile devices more quickly than Buy.com would allow.

The mobile channel is “going gangbusters”, says Coby, with traffic doubling year on year. “What we need to be able to do is provide the ability to launch products online, and launch with mobile, and to link the different parts of how we do business together.”

**Scoping the project**

The retailer brought in consulting firm Deloitte in April 2010 to scope the design for a new website. The consultants spent three weeks going through the options with John Lewis’s managers to discover which would help the company deliver its business case and improve revenues.

They tested the ideas in a series of “challenge sessions” seminars with retail industry experts and John Lewis’s business leaders.

“We went in with one of our accelerators, basically a big bit of paper. We call it the honeycomb. It has every single multi-channel or digital capability you could ever want,” says Jack Smith, a director at Deloitte Digital and a senior leader on the project.

**The personal touch**

Four weeks later, John Lewis had a concrete set of requirements. One of the most important was that the new website should offer customers a more personalised experience. After all, a TV is just a TV, but a dress is not just a dress when it is sold online, says Smith. It needs an approach that is much more tailored to every customer.

Second, John Lewis wanted a site that would allow merchandisers to update and add new products themselves. With the existing website, they had to rely on the IT department to change the Buy.com site for them, and that took time.

The final requirement was for a site with the capacity to scale as the number of online customers grew and the product range increased.

**Rival bidders: IBM versus ATG**

In spring 2010, John Lewis began an eight-week request for proposals from e-commerce suppliers. It shortlisted IBM and ATG, now part of Oracle. Both were invited to the retailer’s headquarters in London Victoria for three days to demonstrate their software.
The team designed the sessions so that, rather than listening to presentations, John Lewis’s business specialists could explore the capabilities of every product and test how they performed using the retailer’s own product data.

“Instead of asking lots and lots of questions, what we said was, ‘We would like you to come into our offices, and you need to sit in front of John Lewis, and you need to demonstrate your software and you need to demonstrate a lot of different scenarios,’” says Smith.

IBM was the least expensive product, but John Lewis ultimately selected ATG. At the time, it offered better personalisation capabilities. And crucially the system was easier for business specialists to use than IBM’s alternative.

**Kicking the tyres**

Four weeks of due diligence followed. “We really kicked the tyres, making sure we had not been sold a pup,” says Smith. The exercise showed that while ATG was a great e-commerce platform, it was not so good at managing product information and photographs.

John Lewis chose to support ATG with an off-the-shelf content management system to handle photographs and images. It selected Adobe Experience Manager, which was simple enough to allow business professionals to update the website without having to call in IT specialists.

It also made a strategic decision to build its own product information management system (PIMS) to supplement ATG – an unusual move for the retailer, which normally prefers off-the-shelf packages.

But John Lewis had particular requirements. It likes to provide its online shoppers with more information about its products than most retailers do. “If we just had commercial systems, we would be the same as everyone else,” says Coby.

**Managing the project**

Managing a project of this scale required careful planning. John Lewis needed to create and manage a dedicated IT organisation for the duration of the project. It would need to bring together its own IT specialists with external consultants and developers and off-shore contractors.

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**How John Lewis plans to grow its online sales**

![John Lewis online market share](image)

Source: John Lewis (market share measured on John Lewis lines)

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**About John Lewis**

John Lewis operates 39 John Lewis shops across the UK (30 department stores and nine John Lewis at home), JohnLewis.com, 255 Waitrose supermarkets, 36 Waitrose convenience stores, Waitrose.com and business-to-business contracts in the UK and abroad.

The business has annual gross sales of more than £9.5bn. It is the UK’s largest example of worker co-ownership, where all 84,700 staff are partners in the business.

Source: John Lewis
John Lewis appointed Deloitte from a shortlist of three competing consulting firms, as an implementation partner, to help to manage and deliver the project.

“We were able to just effectively carry on,” says Smith. “We understood their business, their business drivers, their technology, their legacy landscape.”

The retailer created a three-strong leadership team (see box, right) to oversee seven project teams, including an offshore team responsible for customising ATG, the PIMS development team and teams responsible for integration, data migration, testing and go-live – a total of more than 315 people at the project’s peak.

Above them sat a co-ordinating team, which brought together John Lewis’s CIO, leaders from different areas of the retailer’s business operations and Deloitte.

Motivating the team

Motivating such a large team was a priority for John Lewis. Early on in the project, the management team took everyone on the project off site to a management training centre in Maidenhead for team building.

“We let everybody talk about their hopes and fears and concerns, and put them on the table,” says Coby.

Inevitably in a large-scale project, people worry about deadlines and whether such a complex project will come in on time. But breaking the project down into manageable chunks made a huge project seem more achievable.

“What we tried to do – and what we succeeded in doing – was setting a reasonably close and achievable target,” says Coby. “We said to everybody, ‘If you deliver your bit by then, and they deliver their bit by then, we can all have confidence that the whole thing will come together’.”

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**Project management team**

John Lewis set up a steering group, headed by CIO Paul Coby, which brought together experts from across John Lewis business and its external partners.

Beneath them was a three-strong leadership team responsible for managing seven project teams.

Christine Hull, an experienced project manager at John Lewis, previously responsible for managing online projects for Sainsbury’s, took on the role of business manager. She was responsible for liaising with managers and business specialists across John Lewis, while Coby managed relationships with the board.

The IT programme manager was Paul Kennedy, an Australian with wide experience of retail IT, while Jack Smith took on the role of programme manager for Deloitte, John Lewis’s implementation partner.
Communications

The website project coincided with an office refurbishment project at John Lewis’s London headquarters, which meant office space was in short supply. There was no choice initially but to spread the project team across different floors in different buildings, making communication more difficult.

The project team tackled the problem by sending emails to all members of the project, detailing daily progress. Programme managers were asked to tell the story as it was, without glossing over any difficulties, says Coby.

“We were really upfront when we had problems,” he says. “That was really important.”

Visual refresh

From the start, John Lewis was conscious of the need to build a better website without alienating its existing customers. The retailer had won awards for its existing site. A key requirement was that the new website should look very like the existing website, says Coby.

“We knew that the last thing we wanted to do – and there have been some examples of this – was create something completely different, that we think is wonderful, where no one can find their way around,” he says.

The retailer wanted to handle the design and feel of the new website itself and with good reason, says Smith. “They clearly are good at it. They are already award-winning. They know their customer,” he says.

John Lewis’s designers and graphical artists worked in integrated teams with developers, brought in from as far afield as Australia, to design the look and feel of the new site.

“The designers sat next to our technical architects, so our technical architects could say, by the way, [the ATG web software] won’t allow you to do the thing you have just designed, so you need to change your design,” says Smith.

The 20-strong team had to design hundreds of web pages, all of which could appear in several different states, to offer shoppers a more personalised experience.

“The complexity was to understand all of those different states, so that you are always delivering a great user experience. That is really tough. That took a lot of effort,” says Smith.

It took six months to design and prototype the core site, but the design work continued until the new website went live in early 2013.

Refreshing PIMS

John Lewis turned to agile development to build its replacement product management system, a major cultural change for the retailers’ IT department. Good project management was essential, says Coby.

“I think one of the key things, if agile is to work, is that you have to have very close working arrangements with the business, on the specification. And that worked well,” he says.

A team of 10, including developers, a project manager and two business analysts, were responsible for developing the system, programmed in Java. John Lewis’s
product category managers were closely involved in the project, helping developers to understand how they wanted to manage their product information.

The team produced a new iteration of the software every two weeks, ran the code through automated tests, and requested feedback from the product buyers.

“You are testing what you have just checked in. Does it work, does it work, does it break another part of the build – constant feedback,” says Smith.

Meanwhile, John Lewis used an offshore team of 50 developers in India to customise the ATG web platform. The project team produced software in a series of eight sprints for the business to review and give feedback.

But it was the PIMS project that caught John Lewis’s imagination. It was the first time the retailer had used agile development in such a concentrated way. And it was an unqualified success, says Smith.

“We, in effect, built from nothing, a fully functioning PIM solution within eight months, with effectively zero defects,” he says.

Data migration

Moving product data from the old website to the new one was one of the most complex tasks. John Lewis set up an eight-strong team to develop automated techniques to simplify the migration process.

“It was probably the most challenging part of the programme, purely because there was so much complexity in the data,” says Smith. “Every time we thought we understood it, we found there was another edge case [that we did not understand].”

The team began in July 2012 and worked through to early 2013, when the new website went live. It was a continuous process, with a new data migration every two weeks. “That allowed us to practise and practise, so when it finally came to go-live and we had to take a new cut of the data, we could do that very quickly,” says Smith.

Deloitte’s lessons from the project

Deloitte has identified a series of key lessons from the John Lewis project that it is now applying to other large-scale e-commerce projects:

• Think of the project team as a large IT department rather than a transition team. Give the team its own office space, so all the teams work close to each other.

• Make sure you have sufficient focus on managing data and data migration from day one. Transfer real product data to the new platform before you do any user experience work.

• Do at least one robust customer beta test before you go live with the website. And do it early enough.

• Truly strong executive sponsorship is crucial.

• Projects are won or lost on the strength of the relationships you have between teams. Building trusted relationships from day one is crucial.
Tricky pixels

Later in the project, the John Lewis/Deloitte team tackled the problem of migrating unstructured data – photographs and graphics – to the new website.

The graphics and images were so deeply embedded in the old site that it proved impossible to automate the process.

There were some tricky problems to solve. For example, the graphics on the ATG site needed to be just a few pixels wider than the graphics on the Buy.com site. However, stretching the image was not an option, says Smith. It would look wrong. In practice, everything had to be done manually.

“We had to get a lot of web designers do an external audit, content audit, work out what would break, what would not break, what could just be ported over,” he says.

Co-locating the team

The project gained further momentum after Paul Coby took over as CIO of John Lewis in March 2011, from his previous role as group CIO at British Airways.

Coby and his senior project managers worked hard to raise the profile of the project to John Lewis’s board and throughout the business. With the backing of John Lewis’s chairman, Charlie Mayfield, they were able to demonstrate that the project was not just about developing a website, but transforming the entire business.

“We said for 2012, this was a change programme that we wanted to do in John Lewis and we gave it number one priority. And that required everybody to be involved,” says Coby.

Together with his senior project team, Coby lobbied internally to move the entire project team to a single location. By early 2012, halfway through the project, all 200 project staff in the UK were able to move into a single floor in John Lewis’s headquarters in Victoria.

“It’s clearly crazy that we did not have that from the start. Again, it’s a very simple thing that makes an enormous amount of difference,” says Coby.

Moving everyone to a single location created a buzz and a real level of excitement, says Smith. “They did an excellent job of raising the profile of the programme, so everyone realised it was the most important project in the organisation. When that happened, we got the gold card, and we got everything we needed.”

The team installed coffee machines and areas where the more health conscious could have a fruit break, and organised team nights out to help generate a team spirit.

“It was a major contribution to us succeeding, in my view,” says Smith. “I think it gave us a sense we were striving for the same goal. It allowed us to form the personal relationships that we needed.”

Testing times

Software testing was a major consideration for John Lewis. More so, than for most retailers, it was important that the website worked seamlessly for customers. And John Lewis went further than most to test the final product.

Partners and suppliers

Deloitte
Project implementation, programme management, data migration.

PA Consulting
Managing website go-live.

Professional Access
Information management and technology company, subcontracted to Deloitte for customisation work on John Lewis’ ATG web e-commerce platform. Ran a team of 50 developers in India.

Oracle
Supplied ATG e-commerce software.

Ab Initio
Supplied data migration software.

Seren
Worked on user testing.

IBM
Datacentre equipment and software.

Infosys
Data migration alongside Deloitte.

Cognizant
Testing on ATG platform.

First Friday
End user training for merchandisers.
“We went with a belt-and-braces approach to quality,” says Smith. “The brand damage and the commercial damage that you can do by things going wrong is significant, so you should put as much into testing as you do development.”

Quality control began with the release planning team, a group of 25 specialists drawn from John Lewis itself, Deloitte and the project’s suppliers, Oracle and Software AG, which supplied integration software. Their aim was to make sure the testing teams did not have to deal with time-wasting technical niggles, as the project team worked to integrate more than 30 different IT systems.

“You can’t just throw a piece of software at a test team and say work out where it’s broken – it’s just not fair. And it just slows things down,” says Smith.

In all, the team spent more than a year testing the e-commerce software before it went live. That included eight months of traditional testing and four months of beta testing.

Live bait

By September 2012, John Lewis was ready to begin beta testing the new website with live customers. The team began by inviting every member of staff in John Lewis and Deloitte to browse the site, make purchases and offer feedback. Later, Oracle’s employees joined in the testing.

As confidence in the new site grew, the retailer invited selected customers to join in the testing processes. It gradually ramped up their involvement, eventually sending out email invitations to 3,000 people.

“We spent a lot of time monitoring all the back-end systems, watching every single order go through, doing reconciliation between the different systems,” says Smith.

The retailer’s earlier rigorous testing programme meant there were few significant problems. But there were cases where the site did not work exactly as expected.

The project team, for example, ran into difficulties integrating software from Oracle and IBM into John Lewis’s legacy IT systems. The software packages turned out to be incompatible in the way they handled some types of message. John Lewis brought the suppliers around a table with Deloitte to hammer out a solution.

“They did a good job of getting their suppliers to recognise this was their problem and that we all had to work together to solve it,” says Smith.

Managing business pressure

As the project neared completion, the IT team came under increasing pressure from the business to launch the website.

“We were under intense commercial pressure to get on with it,” says Smith, “due to the fact that the project had been going for ages and that we had spent a lot of money.”

But with the reputation of John Lewis at stake, the IT team knew it was vital not to launch the site before testing was complete.

John Lewis’s business programme manager, Christine Hull, worked with the business staff embedded in the project teams, to help them to understand the issues at stake. She was supported by Coby at board level, who managed

John Lewis’s project diary

2000

• Puts together a business plan to acquire Buy.com, a computer, hi-fi and gadget website. Buy.com becomes the basis of John Lewis’s own website until 2013.

2010

• Develops its business plan. A central aim of its strategy is to increase turnover on the web from £500m to £1bn.

April 2010

• Brings in Deloitte consultants to review its technology capability in the light of its five-year strategy. The review reveals that if John Lewis is to grow its online sales, it needs: a website that can offer shoppers a more personalised experience; the ability for business managers to post new products on the site easily and quickly without complex programming; and a scalable platform to support business growth.

May 2010

• Begins eight-week request for proposals from suppliers for a replacement web platform. IBM and ATG are shortlisted, and ATG is awarded the contract after three days of evaluation and presentations.

• Named as best online retailer in the Which? awards.

June 2010

• John Lewis and Deloitte carry out a four-week in-depth assessment of ATG. It shows that ATG is a strong e-commerce platform, but lacks the necessary product information management and content management capabilities.

• John Lewis runs a mini-tender for a content management system, to manage images, banners and other graphics-rich content for its new website. It selects a content management system from Day Software, CQ5.
the relationship between the IT department and the trading and marketing teams. “That really helped them to understand why it was important not to go too quickly,” says Smith.

**Go-live**

John Lewis was finally ready to go live with the new site in February 2013. It opted to move customers gradually from the old website to the ATG platform over the course of a week.

“We thought how best to manage something of this complexity and importance, and at the end of the day, we actually took a week to do the overall cutover. On the first day, we put 20% of the traffic on, then 40%, and so on, and turned up the volume,” says Coby.

Eight months of testing had ensured there were no major problems, but nonetheless there were stressful moments, Coby reveals. “There were issues we had to fix,” he says. “There was a point where we had to stop because we had found issues we had to solve during the cutover week. Anyone who has been here on the business or the IT side will know just how intense that is.”

At one stage, for example, customers observed the site ran extremely slowly when viewed on Internet Explorer 8. The testing team traced the problem back to a feedback form John Lewis had added to the front page of the site. It contained some Java script that affected the performance of Internet Explorer.

“To make that enormous change and do that cutover was an enormous challenge; it required lots of testing in advance,” says Coby.

**Night of the cutover**

Eventually there was no alternative but to make the final switch. It was a fraught night for the IT team.

“You are acutely conscious of the responsibility you have got, which is the reputation of John Lewis, the trust that we have got with our customers and the need to get that right,” says Coby.

There was too much at stake to crack open the champagne that night. It wasn’t until three weeks later that Coby allowed himself to be photographed, glass in hand.

“I felt very worried because you don’t know what you don’t know on these occasions. You test it and you test it and you test it, you send three million emails out. You simulate the traffic as best you can, then you double it. But you don’t know what you don’t know,” he says.

In the coming weeks, as more people visited the site, the team discovered further problems to address. For John Lewis, as a business, it was important to fix the issues quickly to ensure customers had the best possible experience online.

“Anything wrong for one customer really matters, and we have been working very hard, as well as releasing new functionality, to take any customer comments or any customer problems, and to fix them,” says Coby. In the end, however, the site went live without disruption to online sales. “We didn’t miss a beat,” says Coby.

**End of project party**

When the dust had settled in spring 2013, the project team held a party for...
everyone who had contributed. More than 350 people attended the Supper Club in west London for a night of food and live entertainment with acrobats.

For Deloitte’s Jack Smith, the celebration was particularly poignant. When he started work at John Lewis in 2010, he had just had his first child. Now, his second child was on the way – the 11th baby to be born during the course of the project.

“It was great, it was lovely,” says Smith. “What you really appreciate when you do those events at the end of the project – when you get together all the people involved, even on a part-time basis – you start to realise how many people the project touched.”

**Impact**

With the new website up and running, John Lewis now has the infrastructure it needs to grow its online business over the next decade. But it is much more than a website, says Coby. The ATG project really does affect the whole of John Lewis.

“Almost literally, the business is flowing through these systems. They have to be constantly developed, improved and won,” he says.

It is the combination of online and high street stores and distribution infrastructure that has helped John Lewis to succeed, adds Coby.

About a third of its online business now comes through “click and collect”, which allows customers to order goods online and pick them up at their local store. That means that John Lewis’s supply chain, distribution depots, delivery lorries, website and stores need to work together seamlessly.

“It’s not just a case of let’s stick a website out there,” says Coby. “Everything has to connect and everything has to work.”

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**January 2012**

- Reports online sales for the five weeks over Christmas up 27.9% on 2011, pushing online sales to more than £600m for the financial year to date.

**Early 2012**

- Project teams of 200 people are brought together on a single floor in John Lewis’s Victoria Street headquarters in London, after being dispersed in different parts of the building. The move gives the project new momentum.

**April 2012**

- Development of ATG web platform and Adobe Experience Manager is complete.

**May 2012**

- Eight months of testing begins, including systems integration testing, user acceptance testing, operational acceptance testing, and volume and performance testing.

**July 2012**

- Content migration begins.
Business benefits

The new website gives John Lewis the capabilities to expand its online business without the heavy coding and customisation needed by the earlier Buy.com web technology.

“What we are essentially doing is getting the core stuff out of the box, as part of the platform. And that enables us to use our skills and investment in order to do the really fun, differentiating stuff, in terms of how we sell products and how we develop new services,” says Coby.

Merchandisers can now use Adobe Experience Manager to change product information, add or change products or change the look of a page, without having to call in programmers.

Capacity for growth

Crucially, the project offers John Lewis the capacity to support a growing number of online customers. The store chain operates the website from two datacentres in the home counties running IBM equipment. One datacentre is live, while the other acts as a backup that can be switched in, if needed, at times of peak demand. The datacentre also gives John Lewis the ability to test upgrades to the site before they go live.

“We have the capability to bring a new release in and bring it up on one [datacentre], make sure it’s working, and then bring it up on the second. Under normal traffic levels, we can run on one [datacentre], so that could increase resilience,” says Coby.

Future plans

Coby is tight-lipped about John Lewis’s plans to develop its omni-channel strategy, but it is clear that the new e-commerce platform will allow greater integration between the way products are sold online and in stores.

Customers may not notice a huge difference between the look and feel of the new site and the old site. However, the new website offers every customer a more personalised experience. Two shoppers looking at the same page will see different content, tailored to their interests.

One potential area for growth is textiles and soft furnishings. John Lewis is experimenting with a service that will allow customers to order any shape or fabric when they order their upholstery, for example.

And the ability of the ATG platform to support multiple languages could help John Lewis to reach new markets abroad. The retailer is looking at the potential demand overseas for quality British furniture.

At the same time, Coby plans to use the new platform to develop John Lewis’s use of social media to reach customers and to interact with them through their mobile phones when they enter a store.

Lessons

Website re-platforms are notoriously difficult projects and often fail to live up to expectations when they go live, says Smith. One common mistake that retailers make is to treat web commerce like any other IT project. “If you think you can implement an e-commerce platform in the same way as an ERP [enterprise resource planning] platform, I think you are going to be very challenged,” he warns.

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John Lewis succeeded because of its attention to detail and its drive to ensure that the new site would be as familiar for its customers to use as the old site.

“It’s possible to build a website that does 80% of tasks well reasonably quickly, says Smith. “But where a lot of retailers go wrong is that they don’t spend the time fine-tuning it so it’s customer ready.”

Coby’s ability to secure backing from the board to make the project the top priority transformation programme in the business was another crucial factor. It ensured the project team got the office space it needed on a single floor and the resources it required to complete the work.

And when pressure from the business grew to launch the website early, Coby and his team had built up sufficient goodwill with business leaders to persuade them to wait until the site was totally ready.

“Nothing ever goes perfectly to plan, so it actually took us a bit longer than we intended,” says Coby.

But the new website went live without any interruptions to service. And with online sales pushing north of £1bn a year, it will allow John Lewis’s online business to continue growth at a “fantastic rate”, he says.

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More retail IT resources

Read Computer Weekly’s Interviews with leading retail industry CIOs:

**Paolo Cinelli, CIO, Ikea**
Beginning as a bricks and mortar store in the 1950s, IKEA is now the world’s largest furniture retailer with a turnover of €27bn. The retailer’s priority today is to get closer to its customers through a multi-channel approach that combines digital and traditional methods.

**Carlos Morgado, CTO, Just Eat**
Designing and implementing a public cloud strategy for online takeaway service Just Eat has been CTO Carlos Morgado’s first cloud computing project in his 15 years in IT – and one of the most exciting and rewarding projects he has worked on.

**Fashion house Paul Smith steers a hybrid path to IT excellence**
Lee Bingham, who heads IT at Paul Smith, is using a suite of Microsoft server products as part of a hybrid cloud strategy to increase his department’s responsiveness and operational efficiency.

**Paul Clarke, director of technology, Ocado**
Paul Clarke is responsible for technology strategy at online grocer Ocado, which uses IT in every aspect of the business.

**Angela Morrison, chief information officer, Direct Line**
Migrating IT away from former parent company Royal Bank of Scotland (RBS) is the main priority for Angela Morrison, CIO at insurance provider Direct Line.

**Pete Marsden, CIO, Asos.com**
As online fashion retailer Asos.com continues to expand, its IT strategy has focused on supporting new international locations and keeping up with the demands of web retail.

**Dan West, group IT director, New Look**
As fashion retailer New Look continues its business turnaround and plans to launch operations in China, technology is playing a crucial role in driving operational improvements while boosting profit margins and revenue growth.

**Steve Monaghan, IT and e-commerce director, Waterstones**
After a year of turmoil caused by the migration away from former parent HMV, the technology team at Waterstones is finally finding room to think about strategy and respond to consumer trends such as e-books as well as a challenging retail climate.

**Colin Rees, IT director, Domino’s Pizza**
“I tend not to follow trend for trend’s sake,” says Colin Rees, IT director at Domino’s Pizza.

**Darrell Stein, IT director, Marks & Spencer**
The role of technology is changing at Marks & Spencer – and changing the company itself as a result.
John Lewis’s three-year project to redevelop its award-winning internet shopping site posed some major project management challenges.

More than 250 people worked on John Lewis’s e-commerce transformation, including in-house IT specialists, offshore developers, John Lewis’s central Partnership Services IT department, consultants and suppliers.

There were seven strands of work in total, often going on in parallel, says Paul Coby, IT director of John Lewis, who oversaw the project.

“You have people doing the web front end, people doing the product introduction, people doing the integration into the back end, people doing visual design; you have people doing user testing, people testing the releases and people building the infrastructure for it to run on and testing the communications,” he says.

All of them needed to work closely with specialists in the rest of the business, including designers, marketers and people responsible for supply chain and delivery.

Cross-functional teams

For the project to succeed, it was essential that people from different organisations and different parts of the John Lewis business could work together in teams.

“It took us a long time to get all the different stakeholders to buy into a cross-functional way of working, because the traditional view is everybody sits in their own dependency,” says Jack Smith, a director at Deloitte Digital, John Lewis’s implementation partner.

The sheer scale of the project meant it was often difficult for the IT team and the rest of the business to have a clear view of how the project as whole was progressing.

Coby and the management team tackled the problem by asking programme managers to send a short email every evening detailing where they were. “We were really upfront when we had problems,” says Coby. “That was important.”

Board-level support

Securing backing from the board was essential. John Lewis’s management team worked hard to raise the profile of the project in the rest of the business and the board. Coby secured high-level backing for the project, ensuring it was seen across the business as the most important change project for the retailer in 2012.

That opened up important doors for the project team. Not least, it allowed the entire project team to move to one floor in a single building – vastly improving communications.

One of the most complex challenges was managing the integration of the website into the IT systems that support the rest of John Lewis. “Pulling together all the different components of your e-commerce platform and delivering it is very, very tricky,” says Smith.

Swallowing tablets

Project managers also have to remain flexible, because e-commerce technology is moving so rapidly that decisions taken at the start of a project often need to be revisited. When John Lewis began work on the project, no one was really using tablet computers for online shopping. By the end, they were the most-used device to access the website.

“We had to make some changes in our user experience design and some infrastructural changes to serve that up,” says Smith.

For Coby, the importance of the project was less about the technology itself and more about making the technology easy for the customer to use. “We put a lot of effort in to testing it with customers, but also the look and feel, so that the transition [from the old site] was not a shock,” he says.

Commercial pressure

As the project progressed, the IT team came under greater pressure to launch the website. But, given the website’s criticality to John Lewis, the IT team was anxious not to go live until the site offered customers the right experience.

Coby worked at board level to ensure senior directors and managers understood why the project should not be rolled out too quickly. Meanwhile, other project leaders worked with people from the business embedded in the project team to ensure they also understood the issues.

Lessons

With the website live, Coby has met with John Lewis board directors to work out lessons that can be applied to future projects. Perhaps the most important is to be clear about the scale and complexity of the project.

“Set expectations at the start; recognise that big projects like this are very complex; be realistic in terms of the time scales; and recognise just how challenging they are,” says Coby.

One of the best decisions John Lewis made was to recognise the project as a business change project and give it top priority, he says. “It’s not about IT. It’s changing the business. And that is the core thing,” he says.